Begg Cousland

World Class Filtration Solutions

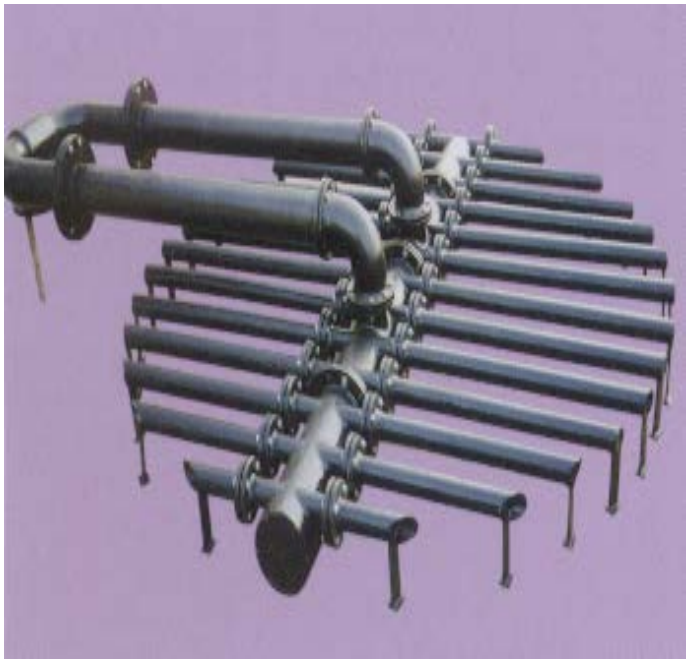
VESSEL INTERNALS FOR SULPHURIC ACID PLANT DRYING & ABSORBING TOWERS

As well as our Filtration Equipment (e.g. 'Becoil' Demisters & 'Becofil' Candle Filters) we supply also the Tower Internals range as shown below.

ACID DISTRIBUTORS

Begg Cousland can offer a wide range of acid distributor styles and materials, for new towers or to retrofit old ones.

Pipe Type

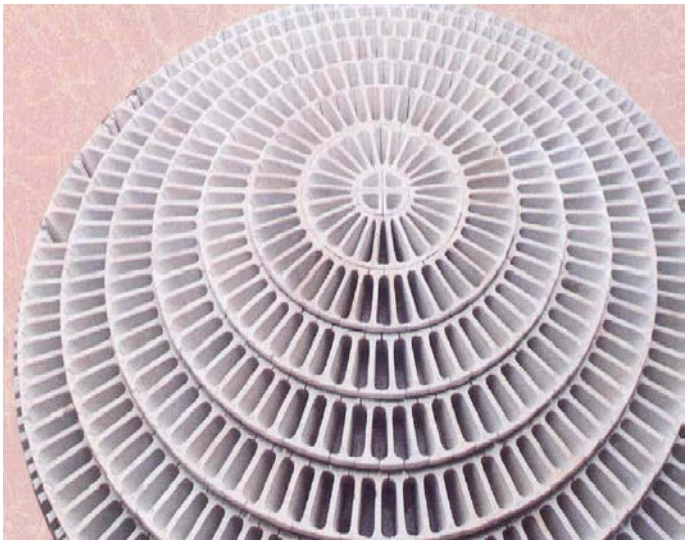


The Pipe type distributor is well known and can be made to suit all tower sizes and designs. Using special HD2 grade Cast Iron, the pipe materials have a life equal to Mondi type.

Trough Type

The Trough type distributor has liquid troughs fed from a header pipe, and the troughs are fitted with distribution pipes of different length and orientation, to ensure an even and equal liquid flow to the tower packing.
Special alloy materials can be used for this type.

Ceramic Dome Packing Support



The highest manufacturing quality standards are used for the production of ceramic domes for the support of random ceramic packings in process towers.
These domes are self supporting, strong, and have an excellent free area to minimize pressure loss.
The gas distribution is very even with his design, which is a key to good packing performance above it.

Begg Cousland has used these dome supports in many towers and there has been 100% customer satisfaction

Including Sulphuric Acid plants in China there are more than 200 reference installations in the last 20 years, with diameters ranging from 1360mm to 8000mm.

3 Towers in Russia with internals by Begg Cousland

Ceramic Random Tower Packings

Begg Cousland supply high quality ceramic packings for Drying and Absorbing Towers. We have a very good and experienced supply from China for these products, which are distributed by us, with our guarantees.
They have been widely used outside China, many times by major contractors and end users.

Typical Specifications of Ceramic Saddles & Rings

Temperature resistance, 1460℃

Water Absorption: 0.11-0.15%

Porosity: 0.25-0.35%

Losses in Sulphuric acid by ASTM C-279: 0.07-0.23%

Real density: 2300kg/m3

Heat Conductivity: 1.412W/(m.K) at 200℃

1.427 W/(m.K) at 500℃

Thermal Expansion, mm/mm.℃ $4.7\text{-}5.6 \times 10^{-6}$

Hardness: HM 7.2

Typical Chemical Composition (%)

SiO_2	70.21-74.51
Al_2O_3	19.79-23.13
Fe_2O_3	0.38-1.15
CaO	.01-0.52
MgO	0.27-0.88
K_2O	1.32-3.40
Na_2O	0-0.20
Ti_2O	0.01- 0.15

Standard Data - Saddles

Size (nominal)	Bulk Density kg/m^3	No. of Pieces per m^3	Surface Area m^2/m^3	Percent Void Space %
25 mm	650	84,000	250	78
38 mm	630	25,000	164	84
50 mm	620	9,400	142	81
75 mm	550	1,870	92	80

Standard Data – Super Intalox Saddles

Size (nominal)	Bulk Density kg/m^3	No. of Pieces per m^3	Surface Area m^2/m^3	Percent Void Space %
25 mm	705	84,000	255	77
38 mm	670	25,000	195	80
50 mm	760	9,400	118	79
75 mm	590	1,870	92	80

Standard Data - Rings

Size O/Dia. x Wall Thickness	Bulk Density kg/m^3	No. of Pieces per m^3	Surface Area m^2/m^3	Percent Void Space %
15 mm x 2mm	880	378,000	370	64
25 mm x 2.5mm	670	47,700	190	74
38 mm x 4 mm	740	13,500	120	68
50 mm x 5 mm	660	5,800	92	74
75 mm x 8 mm	590	1,700	62	75
100 mm x 10 mm	580	700	46	80
150 mm x 15mm	680	320	50	80

Standard Data – Cross Partition Rings

Size O/Dia. x Thickness	Bulk Density kg/m^3	No. of Pieces per m^3	Surface Area m^2/m^3	Percent Void Space %
50 mm x 5 mm	830	5800	132	68
75 mm x 8 mm	1140	1950	120	56
100 mm x 10 mm	1025	1000	110	53
150 mm x 15mm	1035	290	60	58

For further information, please contact us at

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